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UNCLAS SECTION 01 OF 04 YEREVAN 000483

SIPDIS

COMMERCE FOR 3150/PBRADLEY/BSMITH
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EMBASSIES - PLEASE PASS FCS
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DOE FOR CHARLES WASHINGTON

E.O. 12958: N/A
TAGS: KTDB BBSR BEXP BTIO AM
SUBJECT: (IMI) BRIEF OVERVIEW OF ARMENIA'S ENERGY
SECTOR

SUMMARY

- 11. This cable gives an overview of Armenia's energy sector. It describes recent industry developments as well as provides key contacts. End Summary.
- 12. Armenia has no natural fossil fuel energy resources, although some small foreign firms have exploration licenses. Nevertheless, Armenia has inherited surplus electricity generation capacity and regularly exports electricity to Georgia and Iran. Since 2002, the government of Armenia has privatized the electricity distribution network and a large share of Armenia's generation capacity. As part of the privatization process, the Armenian government recently dissolved ArmEnergo, once the state-owned single buyer and seller of midstream electricity and de facto regulator of the industry. Now generating companies contract directly with the distributor, subject to the regulatory oversight of the Public Services Regulatory Commission.
- ¶3. Armenia's electricity generation infrastructure comprises thermal, hydro, and nuclear power plants. The country's installed generation capacity is 3,196 megawatts (MW). In 2004 Armenia produced 6 billion kWhs of electricity.
- 14. The Armenian Nuclear Power Plant's (ANPP) capacity is 408 MW: in 2004 it generated nearly 40 percent of Armenia's total electricity production. The current average annual tariff of electricity produced by ANPP is USD 0.015 per kWh. The plant was shut down in 1989 due to seismic and safety fears following the devastating 1988 earthquake. After some improvements Unit 2 was reopened in 1995 and provides at least one-third of Armenia's annual electric power. The U.S. Government, the EU, the UK, France, and Russia are financing different programs to increase ANPP's safety level. Total foreign assistance to the plant is approximately USD 200 million. In 2003, Russian energy firm RAO-UES and Russian nuclear power holding company RosEnergoAtom took over the ANPP's financial management (through a subsidiary company Inter RAO-UES) in part to guarantee repayment of the plant's arrears for past deliveries of nuclear fuel. Pursuant to Armenia's Nuclear Law, the Government of Armenia still owns the plant and manages the plant's physical operation.
- 15. Armenia's thermal power plants have an installed capacity of 1,756 MW. In 2004 the country's thermal power plants generated 26 percent of Armenia's total electricity production. There are three major thermal plants:
- -- Hrazdan Thermal Power Plant (HTPP), located in Kotayk province, has an installed capacity of 1,100 MW. The average tariff for the electricity produced by the HTPP is USD 0.038 per KWH. The Armenian government privatized Hrazdan TPP in a 2003 debt for equity swap with Russian Federation. Russia's Federal Agency of Federal Property Management established a locally registered company, Hrazdan Energy Organization, to manage the plant. The plant's incomplete Unit 5 remains the property of the Armenian Government. In 1993 EBRD lent the Armenian government USD 57.4 million to partially fund its construction, but the unit remains incomplete due to lack of financing. Currently, the Government of Armenia is considering proposals from foreign power companies to complete Unit 5, which needs investment of about USD 140 million.
- -- Vanadzor TPP in Lori province has $96~\mathrm{MW}$ installed capacity. In $1999~\mathrm{the}$ Government of Armenia sold the

Vanadzor TPP along with the adjacent Vanadzor Chemical Plant to Russian company Zakneftegazstroy-Prometey, which is owned by Moscow-based Diaspora Armenian Senik Gevorgyan. Currently the TPP is in operable condition, but rests idle because its operation is not cost effective.

- -- Yerevan Thermal Power Plant has capacity of 550 MW. The average tariff for the electricity produced by the Yerevan plant is USD 0.04 per KWH. The Ministry of Energy manages the Yerevan TPP and there are no plans to privatize the plant in the near future. The Government of Japan, through the Japan Bank for International Cooperation (JBIC), will lend the Armenian government USD 165 million to build a new 208 MW unit at the Yerevan TPP. We expect that the Armenian Government will announce a tender to select a contractor to implement this project in early 2006.
- 15. Armenia's hydroelectric plants have an installed capacity of 1,032 MW, and supplied 34 percent of Armenia's electricity in 2004. Hydro Power capacities include:
- -- The Sevan-Hrazdan Cascade (556 MW) comprises six hydro power plants along the Hrazdan River flowing from Lake Sevan to Yerevan. The average tariff for the electricity produced by the Sevan-Hrazdan Cascade is USD 0.024 per kWh. The Armenian government sold the plants to Russia's RAO-UES in 2003 in exchange the latter's assumption of USD 43 million in energy arrears. Germany's KfW (Kreditanstalt fuer Wiederaufbau) has financed the refurbishment of one of the six plants, the Kanaker HPP, and is planning to participate in the upgrade generating facilities of the final plant in the cascade, the Yerevan HPP.
- -- The Vorotan Cascade (400 MW) includes three large HPPs on the Vorotan River in Syunik province. The Vorotan Cascade was one of the last facilities to be built under the Soviet regime and has relatively modern equipment. Armenia's Ministry of Energy manages Vorotan Cascade's operations and has plans to privatize the plants in the near future. The Government of Armenia will determine the timeframe of the cascade's privatization in 2006. The cascade's proximity to large mining enterprises in the region makes it attractive to potential investors. The average tariff for the electricity produced by the Vorotan Cascade is USD 0.024 per KWH.
- -- Armenia's small HPPs with a total installed capacity of 76 MW include Dzoraget HPP (26 MW) and more than 20 small HPPs. All of Armenia's small HPPs are privatized. To encourage a rapid development of this segment the Government of Armenia creates favorable conditions by setting higher tariffs for electricity obtained from small HPPs than from larger HPPs. The maximum rate per one kWh the Regulatory Commission sets is USD 0.054, including VAT.
- 16. Armenia privatized the Electricity Network of Armenia (ElNetArm), its electricity distribution network in 2002, selling it to U.K.-registered Midland Resources. The company now manages the country's entire electricity distribution network. In late 2004, a Japanese development bank JBIC lent the distributor USD 38 million to finance the rehabilitation of thirty-three 110 kilovolt (kV) substations as well as the procurement and installation of 150,000 electronic power meters to measure household consumption. ElNetArm recently developed a three-year business development envisaging investments of USD 50 million. The plan is subject to the approval of the Public Services Regulatory Commission. According to local press reports, Midland Resources is considering proposals from several foreign companies to buy Midland's share in ElNetArm. Any sale of ElNetArm requires the approval of the Ministry of Energy and the Public Services Regulatory Commission.
- 17. Armenia's high-voltage power transmission system consists of 1,323 km of 220 kilovolt (kV) lines, 164 km of 330 kV lines, and 3,146 km of 110 kV lines. Armenia's high-voltage power lines are not subject to privatization and are controlled by the Ministry of Energy through the High-Voltage Electric Network Closed Joint-Stock Company. As part of the Trans-Caucasian Power Pool, Armenia is connected via operational transmission lines with neighboring countries, including with Georgia (two 110 kV lines) and Iran (one 220 kV line, the second high-voltage power line was constructed in 2004, the third line's construction to be started in 2005). Transmission lines with Azerbaijan (one 330 kV line), Azerbaijan's exclave territory Nakhichevan (a 220 kV line and two 110 kV

lines) and Turkey are out of use because of political conflicts in the region. The transmission line with Turkey is in operable condition while the lines with Azerbaijan would need to be reconstructed. The German KfW Development Bank and the World Bank provided loans for the reconstruction of the network's substations throughout the country.

- 18. The Ministry of Energy controls the Power System Operator Joint-Stock Company that serves as the single operator and dispatch center for Armenia's energy system. The company is modernizing its communication system with financial assistance from the Japanese Government.
- 19. Armenia's energy-related legislation includes the Energy Law, the Law on Foreign Investment, the Law on Licensing, and the Law on the Public Services Regulatory Body. The Law on Energy regulates relationships between the government bodies, legal entities operating in the sector under the Law and consumers of electricity, thermal energy and natural gas. The Law does not deal with the oil sector.
- 110. The energy sector's main regulatory body is the Public Services Regulatory Commission. Among its responsibilities are setting of the regulated tariffs for electrical and thermal energy and natural gas, transmission, distribution in the energy sector, system operator, services provided in the energy market. To start operations in the energy sector a legal entity should get a license. Under the Energy law the Public Services Regulatory Commission issues licenses for generation, import, export, transmission and distribution of electricity, heat, and the natural gas.
- 111. The Energy law is available at www.rcnm.am. Armenia's energy-related legislation materials can also be obtained from Irtek CJSC, a Yerevan-based legal information center at:

36 Abovyan Street, Yerevan 375009 Armenia Tel: (374-1) 527-950 Fax: (374-1) 569-085 E-mail: info@irtek.am Website: www.irtek.am

KEY CONTACTS

Ministry of Energy 2nd Government Building Republic Square Yerevan 375010 Tel: (374-1) 521-964 Fax: (374-1) 526-365 E-mail: minenergy@minenergy.am Website: www.minenergy.am

Public Services Regulatory Commission
22 Saryan Street
Yerevan 375002
Tel: (374-1) 522-522
Fax: (374-1) 525-583
E-mail: rcnm@rcnm.am
Website: www.rcnm.am
Nuclear and Radiation Safety Center (Armenian Nuclear Regulatory Authority) under the Ministry of Nature
Protection
4 Tigran Mets Street
Yerevan 375010
Tel: (374-1) 543-991
Fax: (374-1) 581-962
E-mail: info@anra.am
Website: www.anra.am

Electric Network of Armenia CJSC Nork 127 Armenakyan Street Yerevan 375047 Tel: (374-1) 542-163 Fax: (374-1) 543-683

E-mail: elnet@arminco.com

High-Voltage Electric Network CJSC 1 Zoravar Andraniki Street Yerevan 375114
Tel: (374-1) 720-010
Fax: (374-1) 720-121
E-mail: hyn@arminco.com

Armenian Nuclear Power Plant CJSC Metsamor

Armavir province 377766
Tel: (374-1) 288-250
Fax: (374-1) 281-825
E-mail: anpp@anpp.am
Website: www.anpp.am

Power System Operator CJSC 27 Abovyan Street Yerevan 375009 Tel: (374-1) 592-960 Fax: (374-1) 524-725 E-mail: arm_eso@freenet.am

International Energy Corporation CJSC 10B Adontsi Street Yerevan 375014
Tel: (374-1) 245-099
Fax: (374-1) 245-199
E-mail: mailmek@mek.am

Vorotan Cascade of Hydroelectric Power Plants CJSC 2 Grigor Tatevatsi Street Goris Syunik province 377830 Tel: (374-84) 22-758 Fax: (374-84) 26-796

EVANS